

WHAT IS CLAIMED IS:

1. A method for making an optical subassembly, comprising:
  - mounting an array of optoelectronic devices to a metallic plate;
  - aligning a lens frame containing a lens array in at least the X and Y direction with respect to the array of optoelectronic devices; and
  - fixing the lens frame to the metallic plate.
2. The method of claim 1, further comprising the step of hermetically sealing the optoelectronic device array.
3. The method of claim 1, further comprising the step of rotating the lens frame with respect to the metallic plate to align the lens array to the optoelectronic device array in the theta direction.
4. The method of claim 1, wherein the step of fixing the lens frame to the metallic plate comprises laser welding the lens frame to the metallic plate while maintaining alignment between the lens array and the optoelectronic device array.
5. The method of claim 1, further comprising the steps of:
  - placing a retainer on a weld plate, said retainer containing a fiber stub array (FSA) comprising at least one fiber stub;
  - aligning the weld plate to the lens frame in at least the Z-direction to provide optical coupling between the array of optoelectronic devices and the fiber stub array; and
  - fixing the weld plate to the lens frame.
6. The method of claim 5, wherein the step of aligning the weld plate to the lens frame in at least the Z-direction comprises an active alignment.

7. The method of claim 5, wherein the step of fixing the weld plate to the lens frame comprises laser welding.
8. The method of claim 5, further comprising the steps of aligning the retainer to the weld plate in at least the X-Y direction after fixing the weld plate to the lens frame; and fixing the retainer to the weld plate, whereby the fiber stub array in the retainer is aligned with the lens array.
9. The method of claim 8, wherein the step of fixing the retainer to the weld plate comprises laser welding.
10. The method of claim 5, further comprising the steps of roughly pre-aligning the fiber stub array to the array of optoelectronic devices prior to aligning the weld plate to the lens frame in at least the Z-direction.